

AMENDMENTS TO THE CLAIMS

Pursuant to 37 C.F.R. § 1.121 the following listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) A method for correcting for an echo signal component in a telecommunications device, comprising the steps of:

sampling a transmitted signal across a sampling resistor to obtain a sampled transmit signal;

subtracting the sampled transmitted signal from a ~~received~~ line signal to obtain a reconstructed received signal;

a' sampling the transmitted signal across a first RC network echo compensation circuit to obtain a first echo compensation signal; and

subtracting the first echo compensation signal from the reconstructed received line signal to produce a first compensated received signal by providing the first echo compensation signal and the reconstructed received signal to a first circuit node;

~~to compensate~~ thereby compensating the reconstructed received signal.

2. (Currently Amended) The method of claim 1, further comprising the steps of:

sampling the transmitted signal across a second RC network echo compensation circuit to obtain a second echo compensation signal; and

subtracting the third echo compensation signal from the second reconstructed received ~~line~~ signal to produce a fourth compensated signal by providing the third echo compensation signal and the second reconstructed received signal to a second circuit node;

~~to compensate~~ thereby compensating the second reconstructed received signal;

sampling the ~~second~~ inverted transmitted signal across a fourth RC network echo compensation circuit to obtain a fourth echo compensation signal; and

subtracting the fourth echo compensation signal from the reconstructed received ~~line~~ signal to produce a fifth compensated signal by providing the fourth echo compensation signal and the reconstructed received signal to a second circuit node;

~~to compensate~~ thereby compensating the reconstructed received signal.

5. (Currently Amended) An apparatus for compensating for echo signal in a telecommunications device comprising:

a transmitter having ~~an output~~ two outputs;

a receiver having an input;

a line transformer coupled to the transmitter output and the receiver input; and

an echo compensation circuit ~~including~~ comprising:

a first circuit branch coupled to the transmitter first output and the receiver input; and

a second circuit branch coupled to the transmitter second output and the receiver

input.

6. (Original) The apparatus according to claim 5, wherein:

the first circuit branch further comprises a first resistor and a first capacitor connected in series; and

the second circuit branch further comprises a second resistor and a second capacitor connected in series.

7. (Currently Amended) The apparatus according to claim 6, 5 further comprising

~~a second transmitter having an output;~~

a second receiver having an input; and

a second echo compensation circuit ~~including~~ comprising:

a third circuit branch coupled to the ~~second~~ transmitter second output and the second receiver input; and

a fourth circuit branch coupled to the transmitter output; and the second receiver
input;

wherein the line transformer is coupled to the second transmitter output and the second receiver input; and

wherein the second circuit branch is coupled to the transmitter output and the second receiver input.

8. (Original) The apparatus according to claim 7, wherein:

the third circuit branch further comprises a third resistor and a third capacitor connected in series; and

the fourth circuit branch further comprises a fourth resistor and a fourth capacitor connected in series.

9. (Original) An apparatus for compensating for echo signal in a telecommunications device comprising:

a first differential transmitter having an output terminal coupled to a first transmitted signal node;

a second differential transmitter having an output terminal coupled to a second transmitted signal node;

a first current limiting resistor having a first terminal coupled to the first transmitted signal node and a second terminal coupled to a first line transformer node;

a second current limiting resistor having a first terminal coupled to the second transmitted signal node and a second terminal coupled to a second line transformer node;

a first sampling resistor having a first terminal coupled to the first line transformer node and a second terminal connected to a first received signal node;

a second sampling resistor having a first terminal coupled to the second line transformer node and a second terminal connected to a second received signal node;

a first compensation circuit having a first terminal coupled to the first transmitted signal node and a second terminal coupled to the first received signal node;

a second compensation circuit having a first terminal coupled to the first transmitted signal node and a second terminal coupled to the second received signal node;

a third compensation circuit having a first terminal coupled to the second transmitted signal node and a second terminal coupled to the second received signal node; and

a fourth compensation circuit having a first terminal coupled to the second transmitted signal node and a second terminal coupled to the first received signal node.

10. (Original) An apparatus for compensating for echo signal in a telecommunications device according to claim 9 wherein,

the first compensation circuit further comprises a first compensation resistor and a first compensation capacitor connected in series;

the second compensation circuit further comprises a second compensation resistor and a second compensation capacitor connected in series;

the third compensation circuit further comprises a third compensation resistor and a third compensation capacitor connected in series; and

the fourth compensation circuit further comprises a fourth compensation resistor and a fourth compensation capacitor connected in series.

11. (Original) An apparatus for compensating for echo signal in a telecommunications device according to claim 9 wherein,

the first terminal of the first sampling resistor is coupled to the first transmitted
signal node; and

the first terminal of the second sampling resistor is coupled to the second transmitted signal node.

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12. (New) The method of claim 1, wherein the transmit signal and the inverted transmit signal are complimentary transmission signal outputs from a differential transmitter pair.
